NOTE:—

(1) Although the potential is based on surplus agro-residues, in practice there are several barriers in collection and transportation of such agro-residues to the generation site and biomass power generation units prefer to use fuel-wood for techno-economic reasons. A potential of 45,000 MW from around 20mha of wastelands assumed to be yielding 1 OMT/ha/anum of woody biomass having 4000 k-cal/kg with system efficiency of 30% and 75% PLF has not been taken into account..In order to realize this potential a major inter-Ministerial initiative involving, among other, Environment & Forests, Agriculture, Rural Development, and Panchayati Raj would be required. Further, a Biomass Atlas is under preparation which is expected to more accurately asess State-wise renewable energy potential from agro-residues.

(2) Potential based on areas having wind power density (wpd) greater than 200 W/m^2 assuming land availability in potential areas @ 1 per cent and requirement of wind farms @ 12 ha/MW, not all of which may be technically feasible for grid-interactive wind power. In line with international practice for setting up grid-interactive wind power systems on sites having wpd greater than 300 W/m^2, potential would be 5000 MW. Further, preliminary surveys do not at this juncture suggest a sizeable grid-interactive off-shore wind power potential.

(3) Technically feasible and economically viable potential is generally accepted at 40% of the total estimated potential. Accordingly, the technically feasible and economically viable small hydropower potential could be around 6000M W.

(4) With new sugar mills and modernization of existing ones, technically feasible potential is assessed at 5000 MWe, not all of which may be economically viable, furthermore, several sugar companies/cooperatives are unable to develop bankable projects on account of their financial and liquidity positions.

(5) With expansion of urban population post census 2001, current technically feasible municipal waste-to-energy potential is assessed at 1700 MWe, not all of which may be economically viable. However, subsidy disbursement under the municipal waste to energy programme had been kept in abeyance on the orders of the Supreme Court in case of a PIL, in May 2005. This stay has now been vacated for setting up 5 pilot projects.

(6) Not all of this renewable energy potential may be suitable for grid-interactive power for technical and/or economic reasons. Further, estimate excludes potential for solar power which is dependent on future developments that might make solar technology cost-competitive for grid-interactive power generation applications.

Power generation by **waste and wind**

t 1019. SHRI JAI PARKASH AGGARWAL: Will the Minister of NEW AND RENEWABLE ENERGY be pleased to State:

(a) the number of power projects set up in different States as on date, with the Central Government assistance for power generation by way of making use of waste and wind;

(b) the quantum of power being generated in these power plants;

(c) the details of possibilities of power generation, by making use of waste and wind in the backward and rural areas that have been explored; and

(d) the amount of assistance provided by the Central Government to the States during the last two years for power generation by making use of waste and wind?

tOriginal notice of the question was received in Hindi.

THE MINISTER OF STATE OF THE MINISTRY OF NEW AND RENEWABLE ENERGY (SHR1 VILAS MUTTEM WAR): (a) and (b) 31 waste-to-energy based power projects aggregating to 68.62 MW capacity in eight States and 36 demonstration wind power projects aggregating to 70.9 MW capacity in nine States have been set up with Central Financial Assistance from Ministry of New and Renewable energy. Moreover, commercial wind power projects of about 7844 MW capacity have been installed in the country through private investment.

(c) Resource Assessments are being carried out for power generation from wind and biomass resources in the country, including the backward and rural areas.

Wind-Solar hybrid system and biomass gasifiers and being installed for meeting the energy requirements in various States, including the backward and rural areas.

The Ministry is also implementing a programme for electrification of remote unelectrified census villages and unelectrified hamlets of electrified census villages through various new and renewable energy sources includng biomass resources such as crop residues and agro-industrial wastes.

(d) Central Financial Assistance of Rs. 10.03 crore for waste-to-power projects and Rs. 1,900 crore for demonstration wind power projects has ben provided by the Ministry to various States during the last two years.

Working of APDRP

1020. DR. K. MALAISAMY: Will the Minister of POWER be pleased to state:

(a) when the Accelerated Power Development Reforms Programme (APDRP) was introduced and what is the impact of the programme on States;

(b) whether it is a fact that many States including Tamil Nadu, despite the incentive given in this Scheme, did not complete the works as per schedule but extended them for years;

(c) if so, what are the specific reasons for such abnormal delay in execution;

(d) whether it is also a fact that there has been diversion of APDRP funds for unauthorized purposes and incorrect reporting of expenditure by States; and

(e) if so, the effective system introduced to arrest the wrong practices in existence?

THE MINISTER OF POWER (SHRI SUSHILKUMAR SHINDE):(a) Government had launched Accelerated Power Development and Reforms Programme (APDRP) in the year 2002-03 with the objective of encouraging reforms and of reduction in Aggregate Technical and Commercial (AT&C) loss, improving quality of supply of power and improving consumer satisfaction. The target was to reduce AT&C losses to 15% in five years to begin with in urban and high density consumption areas. AT&C loss has come down in towns where APDRP has been implemented. Further, some of the utilities which adopted various interventions as envisaged under the programme have shown significant reduction in AT&C loss. At town level, AT&C losses have been brought below 20 per cent in 215 APDRP towns in **the** country of which 163 towns have brought AT&C losses below 15 percent.

(b) Government of lndia had sanctioned projects amounting to Rs. 17033.58 crore under the investment component for strengthening and upgradation of sub-transmission and distribution systems of the States. The States have so far utilized Rs. 11279.50 crores. State of Tamil Nadu has utilized Rs. 724.14 crores out of the total sanctioned cost of Rs. 948.12 crores.

(c) There are delays in completion of the projects. The various reasons for delay in execution of projects are: